

AT501 Mini Asset Tracking Device



[ACTUAL SIZE]



BLE 4.2



LiFeS2
battery
(replaceable)



IP68 waterproof



Autonomous
operation up to 2
years



MFF2
chip SIM



GSM 2G + LTE 4G
5-BAND



Magnetic mount



MEMS
accelerometer



FOTA
Firmware update
Over-the-air



5 year warranty



SDK
available

TECHNICAL SPECIFICATIONS

Mobile Network Communications

Communications Module:	Quectel BG600L-M3
Mobile Network Services:	GSM (2G), LTE Cat M (4G) & NBIoT
GSM EGPRS Frequency Bands:	850/900/1800/1900 MHz
LTE Cat M1 Frequency Bands:	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85
Cat NB2 Frequency Bands:	LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71/B85
GSM Antenna:	Internal PIFA PCB trace
Data Transfer Modes:	TCP or UDP

GNSS LOCATION

GNSS Antenna:	Internal 15 x 15 x 4mm ceramic patch
GNSS Receiver:	Quectel LC86L
L1/B1 Receiver:	GPS L1 C/A: 1574.397–1576.443 MHz GLONASS L1: 1597.781–1605.656 MHz BeiDou B1 C/A: 1559.052–1563.144 MHz
Position Accuracy:	< 2.5m CEP @ -130dBm
Receiver Sensitivity:	-166dBm (GPS + GLONASS, tracking & navigation)
TTF: Cold start	< 15 sec (average) @ -130 dBm
Hot start	< 2 s (average) @ -130 dBm

POWER

Internal Battery:	3 x LiFeS2 AAA cell (non-rechargeable)
Battery Life:	up to 2 years with daily update

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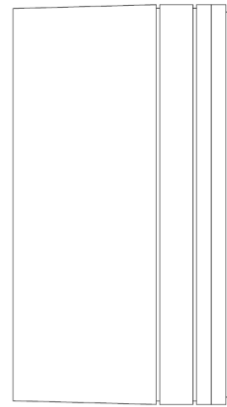
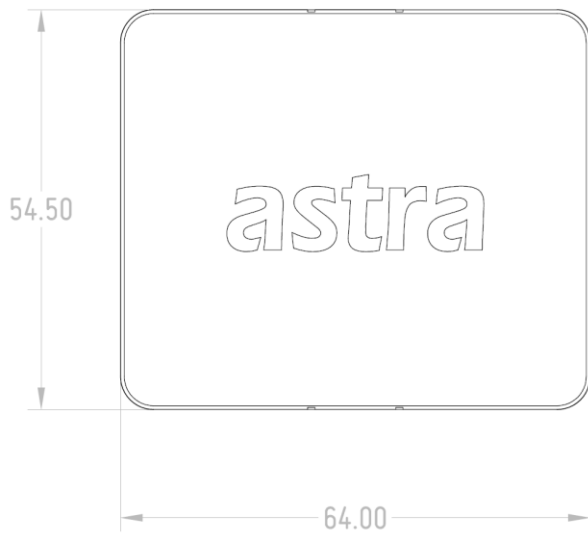
BLE Module:	Silicon Labs BGM123
TX Power:	+3dBm
Sensitivity:	-90dBm
Bluetooth Compliance:	4.2 and earlier

FEATURES

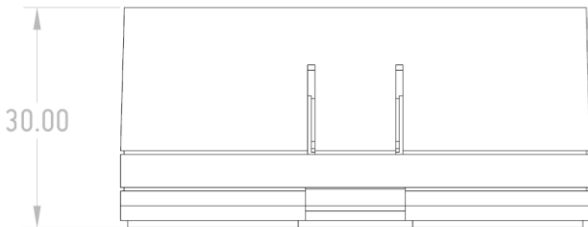
Configuration:	Astra Generic Configuration commands over SMS / TCP
Firmware update:	Supports Astra Firmware Update Over-The-Air (FOTA)
Memory:	1024k on-board non-volatile flash memory
Report storage:	8000 reports
Communication Protocol:	Astra Telematics Modular Protocol X TCP / UDP sockets with optional MQTT authentication / encryption
SIM:	QFN8 / MFF2 format astra "chip SIM" Client supplied SIM is an available option, subject to MoQ and lead-time Please contact us for details

WEIGHT AND DIMENSIONS

135g
69 x 48 x 32 mm



[ACTUAL SIZE]



ENVIRONMENTAL

Temperature:
Operating -20 to +85°C (note: battery charging is suspended at higher temps)
Storage -30 to +85°C

REGULATORY

Product Approvals: TBA

Note: Specifications may change without notice